Jan Delaval.

Access DB# 123160

SEARCH REQUEST FORM

cc

Sabrina Rozz Scientific and Technical Information Center

Requester's Full Name: 10/667524 Examiner #: 74141 Date: 5/27/04

Art Unit: 1616 Phone Number 30 20622 Serial Number: 10/667,524

Mail Box and Bldg/Room Location: Results Format Preferred (circle): PAPER DISK E-MAIL

4C70, Rm, 4A45

If more than one search is submitted, please prioritize searches in order of need. 548/311.1

****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Process + Intermediates for the Prep of imidazopyridine

Inventors (please provide full names): ULRICH et al

Earliest Priority Filing Date: Dec. 7 10/145,290, 6/11/02.

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Please search for the compd of formula 1 and 2.

Please See attached Sheet

Thank you

US 6716990

****

STAFF USE ONLY	Type of Search	Vendors and cost where applicable
Searcher: Jan	NA Sequence (#)	STN ✓
Searcher Phone #: 22504	AA Sequence (#)	Dialog
Searcher Location:	Structure (#) ✓	Questel/Orbit
Date Searcher Picked Up: 5/27	Bibliographic	Dr.Link
Date Completed: 5/27	Litigation	Lexis/Nexis
Searcher Prep & Review Time:	Fulltext	Sequence Systems
Clerical Prep Time: 15	Patent Family	WWW/Internet
Online Time: + K	Other	Other (specify)

PTO-1590 (8-01)

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=> fil reg
FILE 'REGISTRY' ENTERED AT 16:35:58 ON 27 MAY 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:   26 MAY 2004  HIGHEST RN 686262-86-2
DICTIONARY FILE UPDATES:  26 MAY 2004  HIGHEST RN 686262-86-2

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

Crossover limits have been increased.  See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=> d sta que l12
L1                STR
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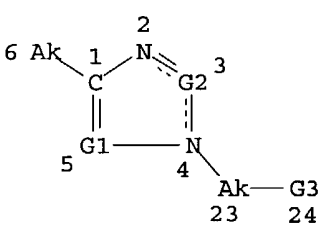

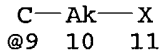

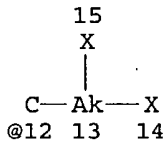

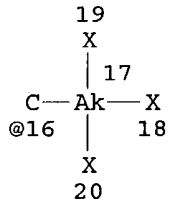

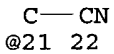

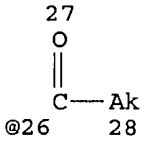

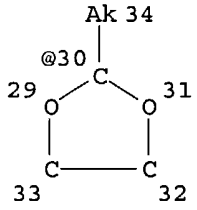


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VAR G2=C/21
VAR G3=26/30
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DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  33

STEREO ATTRIBUTES: NONE
L7            74 SEA FILE=REGISTRY SSS FUL L1
L8            17 SEA FILE=REGISTRY ABB=ON  PLU=ON  L7 AND 1/NR
L9             3 SEA FILE=REGISTRY ABB=ON  PLU=ON  L7 AND OCOC2/ES
L10            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  L9 AND C12H20N2O3
L11            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  L8 AND C11H15N3O
L12            2 SEA FILE=REGISTRY ABB=ON  PLU=ON  (L10 OR L11)
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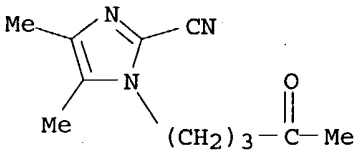
=> d ide can tot l12

L12 ANSWER 1 OF 2 REGISTRY COPYRIGHT 2004 ACS on STN
RN 349636-45-9 REGISTRY
CN 1H-Imidazole-2-carbonitrile, 4,5-dimethyl-1-(4-oxopentyl)- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF **C11 H15 N3 O**
SR CA
LC STN Files: CA, CAPLUS, CASREACT, USPAT2, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: PREP (Preparation); RACT (Reactant or reagent)

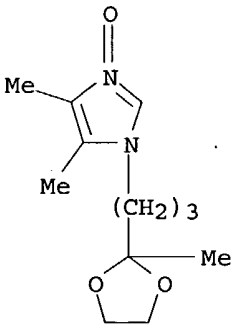


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 135:107330

L12 ANSWER 2 OF 2 REGISTRY COPYRIGHT 2004 ACS on STN
RN 349636-44-8 REGISTRY
CN 1H-Imidazole, 4,5-dimethyl-1-[3-(2-methyl-1,3-dioxolan-2-yl)propyl]-, 3-oxide (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF **C12 H20 N2 O3**
SR CA
LC STN Files: CA, CAPLUS, CASREACT, USPAT2, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: PREP (Preparation); RACT (Reactant or reagent)



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1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 135:107330

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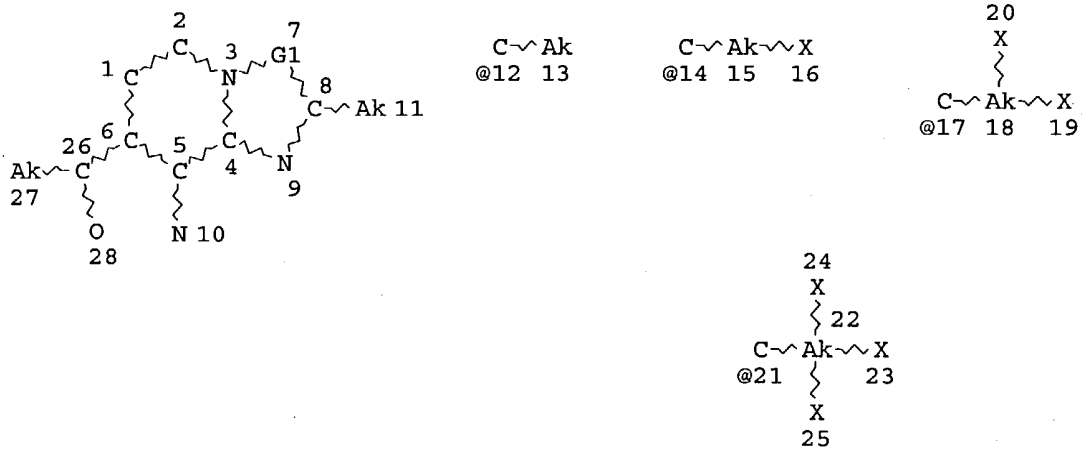

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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC 7
NUMBER OF NODES IS 28

STEREO ATTRIBUTES: NONE
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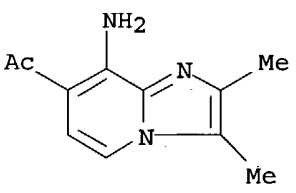
L19 2 SEA FILE=REGISTRY ABB=ON PLU=ON L18 AND (C11H13N3O OR C11H15N3O)

=> d ide can tot l19

L19 ANSWER 1 OF 2 REGISTRY COPYRIGHT 2004 ACS on STN
RN 349636-47-1 REGISTRY
CN Ethanone, 1-(8-amino-2,3-dimethylimidazo[1,2-a]pyridin-7-yl)- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 7-Acetyl-8-amino-2,3-dimethylimidazo[1,2-a]pyridine
FS 3D CONCORD
MF **C11 H13 N3 O**
SR CA
LC STN Files: CA, CAPLUS, CASREACT, TOXCENTER, USPAT2, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: PREP (Preparation); RACT (Reactant or reagent)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

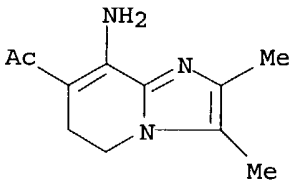
3 REFERENCES IN FILE CA (1907 TO DATE)
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:364931

REFERENCE 2: 136:340678

REFERENCE 3: 135:107330

L19 ANSWER 2 OF 2 REGISTRY COPYRIGHT 2004 ACS on STN
RN 349636-46-0 REGISTRY
CN Ethanone, 1-(8-amino-5,6-dihydro-2,3-dimethylimidazo[1,2-a]pyridin-7-yl)-
(9CI) (CA INDEX NAME)
FS 3D CONCORD
MF **C11 H15 N3 O**
SR CA
LC STN Files: CA, CAPLUS, CASREACT, USPAT2, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: PREP (Preparation); RACT (Reactant or reagent)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 135:107330

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FILE 'REGISTRY' ENTERED AT 16:23:31 ON 27 MAY 2004
L1 STR
L2 0 S L1 CSS SAM
L3 0 S L1 SAM

FILE 'HCAPLUS' ENTERED AT 16:26:52 ON 27 MAY 2004
L4 1 S (US20040059127 OR US671990 OR US20030004358)/PN OR DE2000-100
SEL RN

FILE 'REGISTRY' ENTERED AT 16:27:51 ON 27 MAY 2004
L5 24 S E1-E24
L6 2 S L5 AND NCNC2/ES
L7 74 S L3 FUL
SAV L7 QAZI667/A
L8 17 S L7 AND 1/NR

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L9            3 S L7 AND OCOC2/ES
L10           1 S L9 AND C12H20N2O3
L11           1 S L8 AND C11H15N3O
L12           2 S L10,L11
L13           2 S L5 AND L7
L14           2 S L12,L13
L15           2 S L5 AND NCNC2-NC5/ES
L16             STR
L17           0 S L16
L18          14 S L16 FUL
                SAV L18 QAZI667A/A
L19           2 S L18 AND (C11H13N3O OR C11H15N3O)
L20           2 S L5 AND L18

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L22           3 S L12 OR L20
L23           1 S L22 AND L4
L24           3 S L22 AND (ULRICH ? OR SCHEUFLER ? OR FUCHSS? OR SENN?)/AU
L25           2 S L22 AND BYK?/PA,CS
L26           3 S L22-L25

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L27           3 S L12 OR L20

     FILE 'REGISTRY' ENTERED AT 16:35:58 ON 27 MAY 2004

=> fil hcaplus
FILE 'HCAPLUS' ENTERED AT 16:36:29 ON 27 MAY 2004
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FILE COVERS 1907 - 27 May 2004  VOL 140 ISS 22
FILE LAST UPDATED: 26 May 2004  (20040526/ED)

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.


=> d l26 all hitstr tot

L26  ANSWER 1 OF 3  HCAPLUS  COPYRIGHT 2004 ACS on STN
AN   2003:875288  HCAPLUS
DN   139:364931
ED   Entered STN:  07 Nov 2003
TI   Preparation of nitrosated tricyclic imidazopyridine derivatives as gastric
     secretion-inhibitor and anti-inflammatory and antibacterial agents
IN   Buhr, Wilm; Senn-Bilfinger, Joerg; Zimmermann, Peter Jan
PA   Altana Pharma Ag, Germany
```

SO PCT Int. Appl., 62 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM C07D471-14
ICS C07D491-14; A61K031-436; A61K031-437; A61P001-00; C07D235-00; C07D221-00; C07D311-00
CC 28-9 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 1
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2003091253	A1	20031106	WO 2003-EP4134	20030422

W: AE, AL, AU, BA, BR, CA, CN, CO, CU, DZ, EC, GE, HR, ID, IL, IN, IS, JP, KR, LT, LV, MA, MK, MX, NO, NZ, PH, PL, SG, TN, UA, US, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR

PRAI EP 2002-9104 A 20020424
OS MARPAT 139:364931
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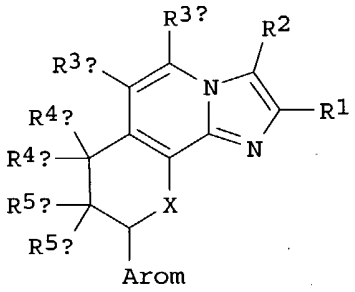


I

AB The invention relates to nitrosated tricyclic imidazopyridines (e.g. 7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine) of formula (I) [R1 = H, C1-4 alkyl, C3-7 cycloalkyl, C3-7 cycloalkyl-C1-4 alkyl, C1-4 alkoxy, C1-4 alkoxy-C1-4 alkyl, C1-4 alkoxycarbonyl, C2-4 alkenyl, C2-4 alkynyl, fluoro-C1-4 alkyl, hydroxy-C1-4 alkyl; R2 = H, C1-4 alkyl, aryl, C3-7 cycloalkyl, C3-7 cycloalkyl-C1-4 alkyl, C1-4 alkoxycarbonyl, hydroxy-C1-4 alkyl, halogen, C2-4 alkenyl, C2-4 alkynyl, fluoro-C1-4 alkyl, cyanomethyl, etc.; R3a, R3b = H, halogen, fluoro-C1-4 alkyl, C1-4 alkyl, C2-4 alkenyl, C2-4 alkynyl, CO2H, -CO-C1-4 alkoxy, hydroxy-C1-4 alkyl, C1-4 alkoxy-C1-4 alkyl, C1-4 alkoxy-C1-4 alkoxy-C1-4 alkyl, fluoro-C1-4 alkoxy-C1-4 alkyl, (un)substituted CONH2; one of R4a and R4b or one of R5a and R5b = H, C1-7 alkyl, C2-7 alkenyl, Ph or phenyl-C1-4 alkyl and the other = HO, C1-4 alkoxy, oxo-substituted C1-4 alkoxy, C3-7 cycloalkoxy, C3-7 cycloalkyl-C1-4 alkoxy, hydroxy-C1-4 alkoxy, C1-4 alkoxy-C1-4 alkoxy, C1-4 alkoxy-C1-4 alkoxy-C1-4 alkoxy, C3-7 cycloalkoxy-C1-4 alkoxy, C3-7 cycloalkyl-C1-4 alkoxy-C1-4 alkoxy, C1-4 alkylcarbonyloxy, wholly or mainly halogen-substituted C1-4 alkoxy, etc. or in which R4a and R4b or R5a and R5b together are O (oxygen) or are C1-7 alkylidene; Arom = (un)substituted mono- or bicyclic aromatic radical; X = O or NH]. Also disclosed is the use of the compds. I for the prevention and treatment of gastrointestinal illnesses. These compds. are acid pump antagonists (APAs) with less side effects than known APAs and have an antibacterial activity against Helicobacter bacteria with less side effects than known compds. with such activity and NO (nitric oxide) releasing activity, in which the effect against Helicobacter bacteria is synergistically enhanced

on account of the gastric acid inhibiting activity of these compds. They exhibit a marked inhibition of gastric secretion and an excellent gastric and intestinal protective action in warm-blooded animals, in particular humans. Due to gastric and intestinal protection, they are useful for the prevention and treatment of gastrointestinal diseases, in particular of gastrointestinal inflammatory diseases and lesions (e.g. gastric ulcer, peptic ulcer, including peptic ulcer bleeding, duodenal ulcer, gastritis, hyperacidic or medicament-related functional dyspepsia), which can be caused, for example, by microorganisms (e.g. Helicobacter pylori), bacterial toxins, medicaments (e.g. certain antiinflammatories and antirheumatics, such as NSAIDs and COX-inhibitors), chems. (e.g. ethanol), gastric acid or stress situations.

ST nitrosated tricyclic imidazopyridine prepn gastric secretion inhibitor antiinflammatory antibacterial; Helicobacter pylori antibacterial nitrosated tricyclic imidazopyridine prepn; gastrointestinal illness treatment prevention nitrosated tricyclic imidazopyridine prepn; tetrahydroimidazonaphthyridine prepn nitric oxide releasing

IT Intestine, disease
(duodenum, ulcer; preparation of nitrosated tricyclic imidazopyridine derivs. as gastric secretion-inhibitor and anti-inflammatory and antibacterial agents for prevention and treatment of gastrointestinal diseases)

IT Stomach, disease
(gastritis; preparation of nitrosated tricyclic imidazopyridine derivs. as gastric secretion-inhibitor and anti-inflammatory and antibacterial agents for prevention and treatment of gastrointestinal diseases)

IT Digestive tract, disease
(gastroenteritis; preparation of nitrosated tricyclic imidazopyridine derivs. as gastric secretion-inhibitor and anti-inflammatory and antibacterial agents for prevention and treatment of gastrointestinal diseases)

IT Drugs
(gastrointestinal; preparation of nitrosated tricyclic imidazopyridine derivs. as gastric secretion-inhibitor and anti-inflammatory and antibacterial agents for prevention and treatment of gastrointestinal diseases)

IT Anti-inflammatory agents
Antibacterial agents
Digestive tract, disease
Helicobacter pylori
Human
Inflammation
(preparation of nitrosated tricyclic imidazopyridine derivs. as gastric secretion-inhibitor and anti-inflammatory and antibacterial agents for prevention and treatment of gastrointestinal diseases)

IT Gastric acid
(secretion; preparation of nitrosated tricyclic imidazopyridine derivs. as gastric secretion-inhibitor and anti-inflammatory and antibacterial agents for prevention and treatment of gastrointestinal diseases)

IT Stomach, disease
(ulcer; preparation of nitrosated tricyclic imidazopyridine derivs. as gastric secretion-inhibitor and anti-inflammatory and antibacterial agents for prevention and treatment of gastrointestinal diseases)

IT **349636-47-1P**, 7-Acetyl-8-amino-2,3-dimethylimidazo[1,2-a]pyridine 363599-28-4P, Ethyl (2R,3R)-3-amino-2-(tert-butyldimethylsilanyloxy)-3-phenylpropionate 363607-99-2P, 2-Methyl-6,7-dihydro-5H-imidazo[1,2-a]pyridin-8-one 419565-68-7P 419565-69-8P, 8-Amino-7-[2,3-epoxy-1-oxo-3-(3-thienyl)propyl]-2,3-dimethylimidazo[1,2-a]pyridine 419565-70-1P, 7,8-Dihydroxy-2,3-dimethyl-9-(3-thienyl)-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 419565-71-2P 419565-72-3P, 8-Amino-2,3-dimethyl-7-[3-(3-thienyl)-1-oxo-2-propenyl]imidazo[1,2-a]pyridine 419565-74-5P 419565-75-6P, 8-Amino-7-[2,3-epoxy-1-oxo-3-(3-furyl)propyl]-2,3-dimethyl-7,8,9,10-tetrahydroimidazo[1,2-a]pyridine 419565-76-7P 419565-77-8P,

8-Amino-2,3-dimethyl-7-[3-(3-furyl)-1-oxo-2-propenyl]imidazo[1,2-a]pyridine 419565-79-0P, (7R,8R,9R)-8-Hydroxy-7-[2-(2-methoxyethoxy)ethoxy]-2,3-dimethyl-9-phenyl-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 419565-80-3P, (7S,8R,9R)-8-Hydroxy-7-[2-(2-methoxyethoxy)ethoxy]-2,3-dimethyl-9-phenyl-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 419565-81-4P 419565-82-5P 419565-83-6P, (7R,8R,9R)-7,8-Dihydroxy-2-methyl-9-phenyl-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 419565-84-7P, (7S,8R,9R)-8-Hydroxy-2-methyl-7-(2-methoxyethoxy)-9-phenyl-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 419565-85-8P, (7R,8R,9R)-8-Hydroxy-2-methyl-7-(2-methoxyethoxy)-9-phenyl-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 419565-86-9P, (7R,8R,9R)-3-Bromo-8-hydroxy-7-(2-methoxyethoxy)-2-methyl-9-phenyl-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 419565-87-0P, (7R,8R,9R)-10-Acetyl-3-bromo-7-(2-methoxyethoxy)-2-methyl-9-phenyl-8-pivaloyloxy-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 419565-88-1P, (7R,8R,9R)-3-Chloro-8-hydroxy-7-(2-methoxyethoxy)-2-methyl-9-phenyl-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 419565-89-2P 419565-91-6P 419565-97-2P 419565-98-3P, (7S,8R,9R)-7,8-Dihydroxy-2-methyl-9-phenyl-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 419565-99-4P, (7R,8R,9R)-8-Hydroxy-7-methoxy-2-methyl-9-phenyl-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 419566-00-0P, (7S,8R,9R)-8-Hydroxy-7-methoxy-2-methyl-9-phenyl-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 419566-01-1P 419566-03-3P, (7R,8R,9R)-3-Hydroxymethyl-8-hydroxy-7-(2-hydroxyethoxy)-2-methyl-9-phenyl-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 419566-05-5P, (7R,8R,9R)-2,3-Dimethyl-8-hydroxy-7-(2-hydroxyethoxy)-9-phenyl-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 419566-06-6P, (7R,8R,9R)-3,9-Diphenyl-8-hydroxy-7-(2-methoxyethoxy)-2-methyl-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 419566-07-7P, (7R,8R,9R)-10-Acetyl-3,9-diphenyl-7-(2-methoxyethoxy)-2-methyl-8-pivaloyloxy-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 419566-08-8P 419566-10-2P 419566-11-3P, (7S,8R,9R)-8-Hydroxy-7-(2-methoxyethoxy)-2-methoxymethyl-3-methyl-9-phenyl-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 419566-12-4P, (7R,8R,9R)-8-Hydroxy-7-(2-methoxyethoxy)-2-methoxymethyl-3-methyl-9-phenyl-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 419566-13-5P, (7R,8R,9R)-7-Ethoxy-8-hydroxy-2-methoxymethyl-3-methyl-9-phenyl-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 419566-14-6P, (7S,8R,9R)-7-Ethoxy-8-hydroxy-2-methoxymethyl-3-methyl-9-phenyl-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 419566-15-7P 419566-16-8P, 7-Acetyl-2,3-dimethyl-8-pivaloylaminoimidazo[1,2-a]pyridine 419566-17-9P 419566-18-0P, (7R,8R,9R)-10-Acetyl-7-(2-methoxyethoxy)-2-methyl-9-phenyl-8-pivaloyloxy-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 419566-19-1P 419566-21-5P 419566-28-2P, 2-Methoxycarbonyl-3-methyl-8-pivaloylaminoimidazo[1,2-a]pyridine 419566-29-3P, 2-Hydroxymethyl-3-methyl-8-pivaloylaminoimidazo[1,2-a]pyridine 419566-30-6P, 2-Chloromethyl-3-methyl-8-pivaloylaminoimidazo[1,2-a]pyridine 419566-31-7P, 2-Methoxymethyl-3-methyl-8-pivaloylaminoimidazo[1,2-a]pyridine 620631-20-1P 620631-24-5P 620631-28-9P 620631-33-6P 620631-38-1P 620631-45-0P 620631-46-1P 620631-48-3P 620631-51-8P 620631-57-4P 620631-58-5P 620631-59-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of nitrosated tricyclic imidazopyridine derivs. as gastric secretion-inhibitor and anti-inflammatory and antibacterial agents for prevention and treatment of gastrointestinal diseases)

IT 10102-43-9, Nitric oxide, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(preparation of nitrosated tricyclic imidazopyridine derivs. as gastric secretion-inhibitor and anti-inflammatory and antibacterial agents for prevention and treatment of gastrointestinal diseases)

IT 620631-18-7P 620631-22-3P 620631-26-7P 620631-30-3P 620631-35-8P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of nitrosated tricyclic imidazopyridine derivs. as gastric secretion-inhibitor and anti-inflammatory and antibacterial agents for prevention and treatment of gastrointestinal diseases)

IT 75-36-5, Acetyl chloride 98-80-6, Phenylboronic acid 109-86-4, Ethylene glycol monomethyl ether 111-77-3, 2-(2-Methoxyethoxy)ethanol 498-60-2, Furan-3-carboxaldehyde 498-62-4, Thiophene-3-carboxaldehyde 876-07-3, 4-Bromomethylbenzoyl bromide 2067-33-6, 5-Bromovaleric acid 2623-87-2, 4-Bromobutyric acid 7761-88-8, Silver nitrate, reactions 34329-73-2, 3-Bromo-2-oxobutanoic acid methyl ester 37693-18-8, 4-Chlorobutyl chloroformate 79707-53-2, 8-Benzyloxy-2-methylimidazo[1,2-a]pyridine 112981-50-7, 2-Methoxyethyl triflate 123830-85-3, Dimethoxypropane 153481-84-6 177556-49-9, 2-Amino-3-pivaloylaminopyridine 214194-01-1, (7R,8R,9R)-7,8-Dihydroxy-2,3-dimethyl-9-phenyl-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 214194-14-6, 2,3-Dimethyl-8-pivaloylaminoimidazo[1,2-a]pyridine 261944-46-1 362605-90-1 362606-09-5 419565-93-8, (7R,8R,9R)-3-Chloro-7-(2-methoxyethoxy)-2-methyl-9-phenyl-8-pivaloyloxy-7H-8,9-dihydropyrano[2,3-c]imidazo[1,2-a]pyridine 419565-95-0, (7R,8R,9R)-7-(2-Methoxyethoxy)-2-methyl-9-phenyl-8-pivaloyloxy-7H-8,9-dihydropyrano[2,3-c]imidazo[1,2-a]pyridine 419566-02-2, (7R,8R,9R)-10-Acetyl-3-hydroxymethyl-7-(2-methoxyethoxy)-2-methyl-9-phenyl-8-pivaloyloxy-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 419566-04-4, (7R,8R,9R)-10-Acetyl-3-hydroxymethyl-7-(2-hydroxyethoxy)-2-methyl-9-phenyl-8-pivaloyloxy-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 419566-20-4, (7R,8R,9R)-10-Acetyl-8-(2-methoxyethoxy)-2-methyl-9-phenyl-7-pivaloyloxy-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 419566-22-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactant; preparation of nitrosated tricyclic imidazopyridine derivs. as gastric secretion-inhibitor and anti-inflammatory and antibacterial agents for prevention and treatment of gastrointestinal diseases)

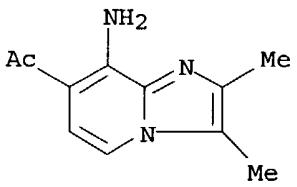
RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Byk Gulden Lomberg; WO 9854188 A 1998 HCAPLUS
(2) Byk Gulden Lomberg; WO 0026217 A 2000 HCAPLUS
(3) Byk Gulden Lomberg Chem Fab; WO 0234749 A 2002 HCAPLUS

IT **349636-47-1P**, 7-Acetyl-8-amino-2,3-dimethylimidazo[1,2-a]pyridine
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of nitrosated tricyclic imidazopyridine derivs. as gastric secretion-inhibitor and anti-inflammatory and antibacterial agents for prevention and treatment of gastrointestinal diseases)

RN 349636-47-1 HCAPLUS
CN Ethanone, 1-(8-amino-2,3-dimethylimidazo[1,2-a]pyridin-7-yl)- (9CI) (CA INDEX NAME)

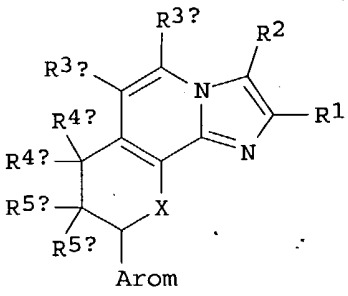


L26 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:332192 HCAPLUS
DN 136:340678

ED Entered STN: 03 May 2002
TI Preparation of substituted imidazopyridines as gastric secretion inhibitors
IN Simon, Wolfgang-Alexander; Postius, Stefan; Sturm, Ernst; Kromer, Wolfgang; Buhr, Wilm; Kohl, Bernhard; **Senn-Bilfinger, Joerg**; Zimmermann, Peter
PA **BYK Gulden Lomberg Chemische Fabrik Gmbh, Germany**
SO PCT Int. Appl., 101 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM C07D471-14
ICS C07D491-147; A61K031-415; A61K031-44; A61K031-35; A61P001-04; C07D471-14; C07D235-00; C07D221-00; C07D221-00; C07D491-147; C07D311-00; C07D235-00; C07D221-00
CC 28-9 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 1, 63
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002034749	A1	20020502	WO 2001-EP12207	20011023
	W: AE, AL, AU, BA, BG, BR, CA, CN, CO, CU, CZ, EC, EE, GE, HR, HU, ID, IL, IN, IS, JP, KR, LT, LV, MK, MX, NO, NZ, PH, PL, RO, SG, SI, SK, UA, US, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
	AU 2002010563	A5	20020506	AU 2002-10563	20011023
	BR 2001014873	A	20030701	BR 2001-14873	20011023
	EP 1332143	A1	20030806	EP 2001-978447	20011023
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2004512338	T2	20040422	JP 2002-537739	20011023
	NO 2003001830	A	20030424	NO 2003-1830	20030424
PRAI	EP 2000-123133	A	20001025		
	WO 2001-EP12207	W	20011023		

OS MARPAT 136:340678
GI



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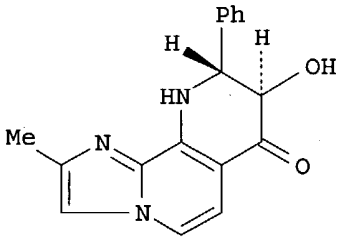


II

AB Title compds. I [R1 = H, alkyl, cycloalkyl, cycloalkyl-alkyl, alkoxy, alkoxy-alkyl, alkoxycarbonyl, alkenyl, alkynyl, fluoro-alkyl, hydroxy-alkyl, R2 = H, alkyl, aryl, cycloalkyl, cycloalkyl-alkyl, alkoxycarbonyl, hydroxy-alkyl, halo, alkenyl, alkynyl, fluoro-alkyl, cyanomethyl; R3a = H, halo, fluoro-alkyl, alkyl, alkenyl, alkynyl, carboxy, etc.; R3b = H, halo, fluoro-alkyl, alkyl, alkenyl, alkynyl, carboxy, CO-alkoxy, hydroxy-alkyl, alkoxy-alkyl, alkoxy-alkoxy-alkyl, etc.; One of R4a-4b = H, alkyl, alkenyl, Ph, phenyl-alkyl and the other is

hydroxy, alkoxy, oxo-substituted alkoxy, cycloalkoxy, cycloalkyl-alkoxy, hydroxy-alkoxy, alkoxy-alkoxy, etc. or R4a-4b together = O, alkylidene; One of R5a-5b = H, alkyl, alkenyl, Ph, phenyl-alkyl and the other is H, hydroxy, alkoxy, oxo-substituted alkoxy, cycloalkoxy, cycloalkyl-alkoxy, hydroxy-alkoxy, alkoxy-alkoxy, etc. or R5a-5b together are O, alkylidene, Arom = mono- or bicyclic (un)substituted aromatic radical; X = O, NH] were prepared For instance 2-methyl-6,7-dihydro-5H-imidazo[1,2-a]pyridin-8-one (preparation given) was condensed with Et (2R,3R)-3-amino-2-(tert-butyldimethylsilanyloxy)-3-phenylpropionate (PhMe, TsOH) to give (8R,9R)-8-((tert-butyldimethylsilanyl)oxy)-2-methyl-9-phenyl-5,6,7,8,9,10-hexahydroimidazo[1,2-h][1,7]naphthyridin-7-one. This intermediate was aromatized with DDQ and subsequently desilylated to afford II. Selected compds. of the invention gave 100% gastric acid secrection inhibition at 3μmol/kg (rat). I are useful for the treatment of gastrointestinal illnesses.

ST imidazopyridine gastric secretion inhibitor prepn

IT Digestive tract, disease
Human
(preparation of substituted imidazopyridines as gastric secretion inhibitors)

IT Gastric acid
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(secretion, inhibitors; preparation of substituted imidazopyridines as gastric secretion inhibitors)

IT 419565-98-3P, (7S,8R,9R)-7,8-Dihydroxy-2-methyl-9-phenyl-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(drug, reactant, reactant; preparation of substituted imidazopyridines as gastric secretion inhibitors)

IT 419565-71-2P 419565-76-7P 419565-81-4P 419565-83-6P, (7R,8R,9R)-7,8-Dihydroxy-2-methyl-9-phenyl-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 419566-08-8P 419566-10-2P, (7R,8R,9R)-7,8-Dihydroxy-2-methoxymethyl-3-methyl-9-phenyl-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 419566-15-7P
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(drug, reactant; preparation of substituted imidazopyridines as gastric secretion inhibitors)

IT 419565-68-7P
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(drug; preparation of substituted imidazopyridines as gastric secretion inhibitors)

IT 419565-70-1P, 7,8-Dihydroxy-2,3-dimethyl-9-(3-thienyl)-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 419565-73-4P, 7-Hydroxy-2,3-dimethyl-9-(3-thienyl)-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 419565-74-5P 419565-78-9P, 9-(3-Furyl)-7-hydroxy-2,3-dimethyl-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 419565-79-0P, (7R,8R,9R)-8-Hydroxy-7-[2-(2-methoxyethoxy)ethoxy]-2,3-dimethyl-9-phenyl-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 419565-80-3P, (7S,8R,9R)-8-Hydroxy-7-[2-(2-methoxyethoxy)ethoxy]-2,3-dimethyl-9-phenyl-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 419565-84-7P, (7S,8R,9R)-8-Hydroxy-2-methyl-7-(2-methoxyethoxy)-9-phenyl-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 419565-85-8P, (7R,8R,9R)-8-Hydroxy-2-methyl-7-(2-methoxyethoxy)-9-phenyl-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 419565-86-9P, (7R,8R,9R)-3-Bromo-8-hydroxy-7-(2-methoxyethoxy)-2-methyl-9-phenyl-

7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 419565-88-1P, (7R,8R,9R)-3-Chloro-8-hydroxy-7-(2-methoxyethoxy)-2-methyl-9-phenyl-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 419565-90-5P, (7R,8R,9R)-3-Bromo-7-hydroxy-8-(2-methoxyethoxy)-2-methyl-9-phenyl-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 419565-92-7P, (7R,8R,9R)-3-Chloro-8-hydroxy-7-(2-methoxyethoxy)-2-methyl-9-phenyl-7H-8,9-dihydropyrano[2,3-c]imidazo[1,2-a]pyridine 419565-94-9P, (7R,8R,9R)-8-Hydroxy-7-(2-methoxyethoxy)-2-methyl-9-phenyl-7H-8,9-dihydropyrano[2,3-c]imidazo[1,2-a]pyridine 419565-96-1P, (7R,8R,9R)-7,8-Dihydroxy-2-methyl-9-phenyl-7H-8,9-dihydropyrano[2,3-c]imidazo[1,2-a]pyridine 419565-99-4P, (7R,8R,9R)-8-Hydroxy-7-methoxy-2-methyl-9-phenyl-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 419566-00-0P, (7S,8R,9R)-8-Hydroxy-7-methoxy-2-methyl-9-phenyl-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 419566-01-1P, (7R,8R,9R)-3-Hydroxymethyl-8-hydroxy-7-(2-methoxyethoxy)-2-methyl-9-phenyl-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 419566-03-3P, (7R,8R,9R)-3-Hydroxymethyl-8-hydroxy-7-(2-hydroxyethoxy)-2-methyl-9-phenyl-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 419566-05-5P, (7R,8R,9R)-2,3-Dimethyl-8-hydroxy-7-(2-hydroxyethoxy)-9-phenyl-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 419566-06-6P, (7R,8R,9R)-3,9-Diphenyl-8-hydroxy-7-(2-methoxyethoxy)-2-methyl-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 419566-11-3P, (7S,8R,9R)-8-Hydroxy-7-(2-methoxyethoxy)-2-methoxymethyl-3-methyl-9-phenyl-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 419566-12-4P, (7R,8R,9R)-8-Hydroxy-7-(2-methoxyethoxy)-2-methoxymethyl-3-methyl-9-phenyl-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 419566-13-5P, (7R,8R,9R)-7-Ethoxy-8-hydroxy-2-methoxymethyl-3-methyl-9-phenyl-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 419566-14-6P, (7S,8R,9R)-7-Ethoxy-8-hydroxy-2-methoxymethyl-3-methyl-9-phenyl-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug; preparation of substituted imidazopyridines as gastric secretion inhibitors)

IT 79707-11-2P **349636-47-1P**, 7-Acetyl-8-amino-2,3-dimethylimidazo[1,2-a]pyridine 362525-66-4P, 6,8-Dibromo-2,3-dimethylimidazo[1,2-a]pyridine 362525-67-5P, 8-Benzyloxy-6-bromo-2,3-dimethylimidazo[1,2-a]pyridine 362525-68-6P, 8-Benzyloxy-6-ethoxycarbonyl-2,3-dimethylimidazo[1,2-a]pyridine 362525-69-7P, 6-Ethoxycarbonyl-8-hydroxy-2,3-dimethyl-5,6,7,8-tetrahydroimidazo[1,2-a]pyridine 362525-70-0P, 6-Ethoxycarbonyl-2,3-dimethyl-5,6,7,8-tetrahydroimidazo[1,2-a]pyridin-8-one 362525-71-1P, 8-Benzyloxy-6-hydroxymethyl-2,3-dimethylimidazo[1,2-a]pyridine 362525-73-3P, 2,3-Dimethyl-6,7-dihydro-5H-imidazo[1,2-a]pyridin-8-one 363599-15-9P, 8-Benzyloxy-6-methoxymethyl-2,3-dimethylimidazo[1,2-a]pyridine 363599-16-0P, 6-Methoxymethyl-2,3-dimethyl-5,6,7,8-tetrahydroimidazo[1,2-a]pyridin-8-one 363607-99-2P, 2-Methyl-6,7-dihydro-5H-imidazo[1,2-a]pyridin-8-one 419565-69-8P, 8-Amino-7-[2,3-epoxy-1-oxo-3-(3-thienyl)propyl]-2,3-dimethylimidazo[1,2-a]pyridine 419565-72-3P, 8-Amino-2,3-dimethyl-7-[3-(3-thienyl)-1-oxo-2-propenyl]imidazo[1,2-a]pyridine 419565-82-5P 419565-87-0P, (7R,8R,9R)-10-Acetyl-3-bromo-7-(2-methoxyethoxy)-2-methyl-9-phenyl-8-pivaloyloxy-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 419565-89-2P 419565-91-6P 419565-95-0P, (7R,8R,9R)-7-(2-Methoxyethoxy)-2-methyl-9-phenyl-8-pivaloyloxy-7H-8,9-dihydropyrano[2,3-c]imidazo[1,2-a]pyridine 419565-97-2P 419566-07-7P, (7R,8R,9R)-10-Acetyl-3,9-diphenyl-7-(2-methoxyethoxy)-2-methyl-8-pivaloyloxy-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 419566-09-9P 419566-16-8P, 7-Acetyl-2,3-dimethyl-8-pivaloylaminoimidazo[1,2-a]pyridine 419566-17-9P 419566-18-0P, (7R,8R,9R)-10-Acetyl-7-(2-methoxyethoxy)-2-methyl-9-phenyl-8-pivaloyloxy-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 419566-19-1P, (7R,8R,9R)-10-Acetyl-7-hydroxy-2-methyl-9-phenyl-8-pivaloyloxy-7,8,9,10-

tetrahydroimidazo[1,2-h][1,7]naphthyridine 419566-21-5P 419566-22-6P 419566-23-7P 419566-25-9P 419566-26-0P 419566-27-1P, (7R,8R,9R)-7-Hydroxy-2-methyl-9-phenyl-8-pivaloyloxy-7H-8,9-dihydropyrano[2,3-c]imidazo[1,2-a]pyridine 419566-28-2P, 2-Methoxycarbonyl-3-methyl-8-pivaloylaminoimidazo[1,2-a]pyridine 419566-29-3P, 2-Hydroxymethyl-3-methyl-8-pivaloylaminoimidazo[1,2-a]pyridine 419566-30-6P, 2-Chloromethyl-3-methyl-8-pivaloylaminoimidazo[1,2-a]pyridine 419566-31-7P, 2-Methoxymethyl-3-methyl-8-pivaloylaminoimidazo[1,2-a]pyridine
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of substituted imidazopyridines as gastric secretion inhibitors)

IT 98-80-6, Phenylboronic acid 100-51-6, Benzyl alcohol, reactions 111-77-3, 2-(2-Methoxyethoxy)ethanol 498-60-2, Furan-3-carboxaldehyde 498-62-4, Thiophene-3-carboxaldehyde 814-75-5, 3-Bromo-2-butanone 34329-73-2, 3-Bromo-2-oxobutanoic acid methyl ester 35486-42-1, 2-Amino-3,5-dibromopyridine 79707-53-2, 8-Benzyloxy-2-methylimidazo[1,2-a]pyridine 96428-89-6, 8-Benzyloxy-2,3-dimethylimidazo[1,2-a]pyridine 119858-51-4, 8-Amino-2,3-dimethylimidazo[1,2-a]pyridine 177556-49-9, 2-Amino-3-pivaloylaminopyridine 214194-01-1, (7R,8R,9R)-7,8-Dihydroxy-2,3-dimethyl-9-phenyl-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 214194-14-6, 2,3-Dimethyl-8-pivaloylaminoimidazo[1,2-a]pyridine 363599-28-4, Ethyl (2R,3R)-3-amino-2-(tert-butyldimethylsilanyloxy)-3-phenylpropionate 419565-75-6 419565-77-8, 8-Amino-2,3-dimethyl-7-[3-(3-furyl)-1-oxo-2-propenyl]imidazo[1,2-a]pyridine 419565-93-8, (7R,8R,9R)-3-Chloro-7-(2-methoxyethoxy)-2-methyl-9-phenyl-8-pivaloyloxy-7H-8,9-dihydropyrano[2,3-c]imidazo[1,2-a]pyridine 419566-02-2, (7R,8R,9R)-10-Acetyl-3-hydroxymethyl-7-(2-methoxyethoxy)-2-methyl-9-phenyl-8-pivaloyloxy-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 419566-04-4, (7R,8R,9R)-10-Acetyl-3-hydroxymethyl-7-(2-hydroxyethoxy)-2-methyl-9-phenyl-8-pivaloyloxy-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 419566-20-4, (7R,8R,9R)-10-Acetyl-8-(2-methoxyethoxy)-2-methyl-9-phenyl-7-pivaloyloxy-7,8,9,10-tetrahydroimidazo[1,2-h][1,7]naphthyridine 419566-24-8 419566-32-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactant; preparation of substituted imidazopyridines as gastric secretion inhibitors)

RE.CNT 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD

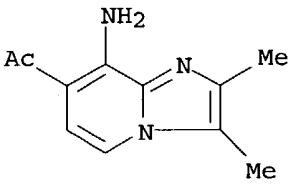
RE

(1) Astra, A; WO 9527714 A 1995 HCAPLUS
(2) Byk Gulden Lomberg; ZA 9802445 A 1998 HCAPLUS
(3) Byk Gulden Lomberg Chemische Fabrik Gmbh; WO 9842707 A 1998 HCAPLUS
(4) Byk Gulden Lomberg Chemische Fabrik Gmbh; WO 9854188 A 1998 HCAPLUS
(5) Byk Gulden Lomberg Chemische Fabrik Gmbh; WO 0017200 A 2000 HCAPLUS
(6) Byk Gulden Lomberg Chemische Fabrik Gmbh; WO 0026217 A 2000 HCAPLUS
(7) Byk Gulden Lomberg Chemische Fabrik Gmbh; WO 0063211 A 2000 HCAPLUS
(8) Byk Gulden Lomberg Chemische Fabrik Gmbh; WO 0172754 A 2001 HCAPLUS
(9) Byk Gulden Lomberg Chemische Fabrik Gmbh; WO 0172755 A 2001 HCAPLUS
(10) Byk Gulden Lomberg Chemische Fabrik Gmbh; WO 0172756 A 2001 HCAPLUS
(11) Byk Gulden Lomberg Chemische Fabrik Gmbh; WO 0172757 A 2001 HCAPLUS
(12) Gold, E; US 4468400 A 1984 HCAPLUS
(13) Kaminski, J; J MED CHEM 1989, V32(8), P1686 HCAPLUS
(14) Kaminski, J; J MED CHEM 1991, V34(2), P533 HCAPLUS
(15) Kaminski, J; J MED CHEM 1997, V40(4), P427 HCAPLUS

IT **349636-47-1P**, 7-Acetyl-8-amino-2,3-dimethylimidazo[1,2-a]pyridine
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of substituted imidazopyridines as gastric secretion inhibitors)

RN 349636-47-1 HCAPLUS

CN Ethanone, 1-(8-amino-2,3-dimethylimidazo[1,2-a]pyridin-7-yl)- (9CI) (CA INDEX NAME)



L26 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2001:526074 HCAPLUS
DN 135:107330
ED Entered STN: 20 Jul 2001
TI Process and intermediates for the preparation of imidazo[1,2-a]pyridines from substituted imidazoles
IN **Ulrich, Wolf-Ruediger; Scheufler, Christian; Fuchss, Thomas; Senn-Bilfinger, Joerg**
PA **BYK Gulden Lomberg Chemische Fabrik G.m.b.H., Germany**
SO PCT Int. Appl., 12 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM C07D405-06
ICS C07D233-90; C07D471-04
CC 28-9 (Heterocyclic Compounds (More Than One Hetero Atom))
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001051486	A2	20010719	WO 2001-EP261	20010111 <--
	WO 2001051486	A3	20020314		
	W: AE, AL, AU, BA, BG, BR, CA, CN, CZ, EE, GE, HR, HU, ID, IL, IN, JP, KR, LT, LV, MK, MX, NO, NZ, PL, RO, SG, SI, SK, UA, US, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
	DE 10001037	C1	20011213	DE 2000-10001037	20000113 <--
	AU 2001025149	A5	20010724	AU 2001-25149	20010111 <--
	EP 1250335	A2	20021023	EP 2001-900421	20010111 <--
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	JP 2003519696	T2	20030624	JP 2001-551868	20010111 <--
	US 2003004358	A1	20030102	US 2002-149290	20020611 <--
	US 6716990	B2	20040406		
	US 2004059127	A1	20040325	US 2003-667524	20030923 <--
PRAI	DE 2000-10001037	A	20000113 <--		
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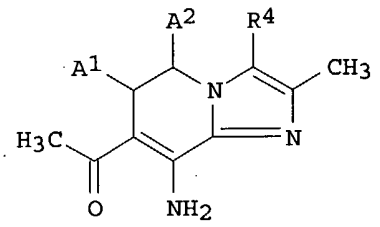

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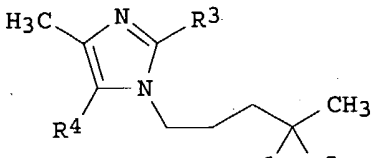


II

AB Imidazo[1,2-a]pyridines (I; A1, A2 = H or together form a bond; R4 = H, CH3, CF3) are prepared in high yield and selectivity by the cyclization of imidazoles (II; R1, R2 together are O or OCH2CH2O; R3 = H, CN; R4 = H, CH3, CF3) with deprotonation to give 5,6-dihydroimidazo[1,2-a]pyridines which may be further oxidized (e.g., A1 and A2 hydrogens removed to form a double bond) to give imidazo[1,2-a]pyridines. Thus, 2-cyano-4,5-dimethyl-1-N-(pentan-2-on-5-yl)imidazole was reacted with tert-BuOK in THF and saturated ammonium chloride solution added, producing 7-acetyl-8-amino-5,6-dihydro-2,3-dimethylimidazo[1,2-a]pyridine, m.p. 204° (decomposition).

ST dihydroimidazopyridine prepn; imidazopyridine prepn dihydroimidazopyridine oxidn; pyridine imidazo; acetylaminodihydrodimethylimidazopyridine prepn

IT Cyclocondensation reaction
(intramol.; of 2-cyano-4,5-dimethyl-1-N-(pentan-2-on-5-yl)imidazole into 7-acetyl-8-amino-5,6-dihydro-2,3-dimethylimidazo[1,2-a]pyridine)

IT Oxidation
(liquid-phase; of 7-acetyl-8-amino-5,6-dihydro-2,3-dimethylimidazo[1,2-a]pyridine into 7-Acetyl-8-amino-2,3-dimethylimidazo[1,2-a]pyridine using manganese dioxide)

IT 7440-44-0, Activated carbon, uses
RL: CAT (Catalyst use); USES (Uses)
(activated, support; process and intermediates for the preparation of imidazo[1,2-a]pyridines from substituted imidazoles)

IT 104-15-4, p-Toluenesulfonic acid, uses 1344-28-1, Alumina, uses 7440-05-3, Palladium, uses 7789-23-3, Potassium fluoride
RL: CAT (Catalyst use); USES (Uses)
(process and intermediates for the preparation of imidazo[1,2-a]pyridines from substituted imidazoles)

IT 57-71-6, Diacetyl monoxime 64-18-6, Formic acid, reactions 75-52-5, Nitromethane, reactions 77-78-1, Dimethyl sulfate 78-94-4, Methyl vinyl ketone, reactions 107-21-1, Ethylene glycol, reactions 144-55-8, Sodium bicarbonate, reactions 151-50-8, Potassium cyanide 865-47-4 30525-89-4, Paraformaldehyde
RL: RCT (Reactant); RACT (Reactant or reagent)
(process and intermediates for the preparation of imidazo[1,2-a]pyridines from substituted imidazoles)

IT 19639-74-8P 22020-87-7P, 5-Nitro-2-pentanone 66442-97-5P **349636-44-8P 349636-45-9P 349636-46-0P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(process and intermediates for the preparation of imidazo[1,2-a]pyridines from substituted imidazoles)

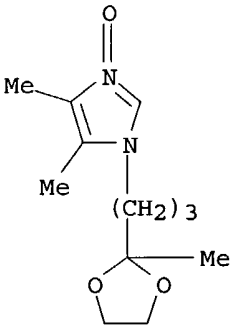
IT **349636-47-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(process and intermediates for the preparation of imidazo[1,2-a]pyridines from substituted imidazoles)

IT 540-84-1, 2,2,4-Trimethylpentane 7732-18-5, Water, uses
RL: NUU (Other use, unclassified); USES (Uses)
(solvent; process and intermediates for the preparation of imidazo[1,2-a]pyridines from substituted imidazoles)

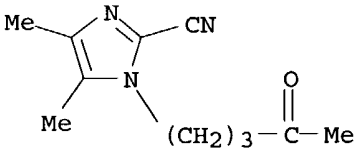
IT **349636-44-8P 349636-45-9P 349636-46-0P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)
(process and intermediates for the preparation of imidazo[1,2-a]pyridines from substituted imidazoles)

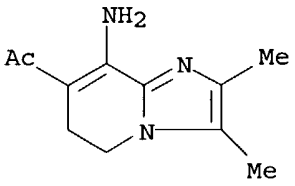
RN 349636-44-8 HCAPLUS
CN 1H-Imidazole, 4,5-dimethyl-1-[3-(2-methyl-1,3-dioxolan-2-yl)propyl]-, 3-oxide (9CI) (CA INDEX NAME)



RN 349636-45-9 HCAPLUS
CN 1H-Imidazole-2-carbonitrile, 4,5-dimethyl-1-(4-oxopentyl)- (9CI) (CA INDEX NAME)

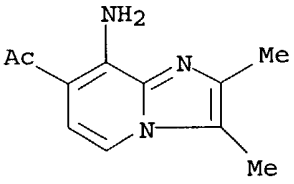


RN 349636-46-0 HCAPLUS
CN Ethanone, 1-(8-amino-5,6-dihydro-2,3-dimethylimidazo[1,2-a]pyridin-7-yl)- (9CI) (CA INDEX NAME)



IT **349636-47-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(process and intermediates for the preparation of imidazo[1,2-a]pyridines from substituted imidazoles)

RN 349636-47-1 HCAPLUS
CN Ethanone, 1-(8-amino-2,3-dimethylimidazo[1,2-a]pyridin-7-yl)- (9CI) (CA INDEX NAME)



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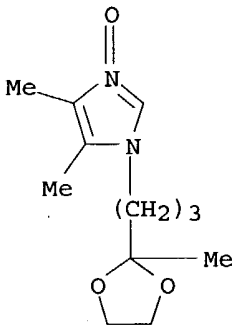
CA INDEXING COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'USPAT2' ENTERED AT 16:36:37 ON 27 MAY 2004
CA INDEXING COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

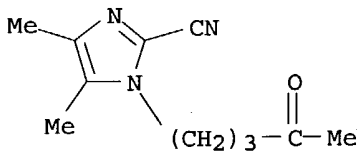
=> d l27 bib abs hitstr tot

L27 ANSWER 1 OF 3 USPATFULL on STN
AN 2004:77348 USPATFULL
TI Process and intermediates for the preparation of imidazopyridines
IN Ulrich, Wolf-Rudiger, Konstanz, GERMANY, FEDERAL REPUBLIC OF
Scheufler, Christian, Engen-Neuhausen, GERMANY, FEDERAL REPUBLIC OF
Fuchss, Thomas, Konstanz, GERMANY, FEDERAL REPUBLIC OF
Senn-Bilfinger, Jorg, Konstanz, GERMANY, FEDERAL REPUBLIC OF
PA BYK Gulden Fabrik Lomberg Chemische Fabrik GmbH, Konstanz, GERMANY, FEDERAL REPUBLIC OF (non-U.S. corporation)
Altana Pharma AG, Konstanz, GERMANY, FEDERAL REPUBLIC OF (non-U.S. corporation)
PI US 2004059127 A1 20040325
AI US 2003-667524 A1 20030923 (10)
RLI Division of Ser. No. US 2002-149290, filed on 11 Jun 2002, PENDING A 371 of International Ser. No. WO 2001-EP261, filed on 11 Jan 2001, UNKNOWN
PRAI DE 2000-10001037 20000113
DT Utility
FS APPLICATION
LREP Gary M. Nath, NATH & ASSOCIATES PLLC, 6th Floor, 1030 15th Street, N.W., Washington, DC, 20005
CLMN Number of Claims: 6
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 340
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention relates to compounds of formula (2) in which R1, R2, R3 and R4 have the meanings indicated in the description, their preparation and their further reaction to give compounds of formula (1), in which A.sub.1, A.sub.2 and R4 have the meanings indicated in the description. The compounds of the formula (1) are valuable intermediates for the preparation of medicaments. ##STR1##

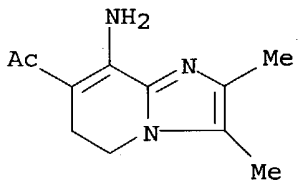
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **349636-44-8P 349636-45-9P 349636-46-0P**
(process and intermediates for the preparation of imidazo[1,2-a]pyridines from substituted imidazoles)
RN 349636-44-8 USPATFULL
CN 1H-Imidazole, 4,5-dimethyl-1-[3-(2-methyl-1,3-dioxolan-2-yl)propyl]-, 3-oxide (9CI) (CA INDEX NAME)



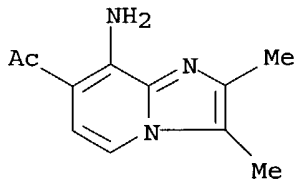
RN 349636-45-9 USPATFULL
CN 1H-Imidazole-2-carbonitrile, 4,5-dimethyl-1-(4-oxopentyl)- (9CI) (CA INDEX NAME)



RN 349636-46-0 USPATFULL
CN Ethanone, 1-(8-amino-5,6-dihydro-2,3-dimethylimidazo[1,2-a]pyridin-7-yl)- (9CI) (CA INDEX NAME)



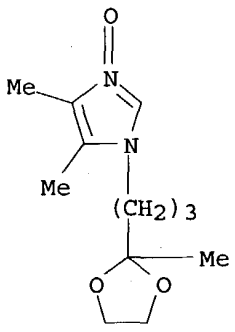
IT **349636-47-1P**
(process and intermediates for the preparation of imidazo[1,2-a]pyridines from substituted imidazoles)
RN 349636-47-1 USPATFULL
CN Ethanone, 1-(8-amino-2,3-dimethylimidazo[1,2-a]pyridin-7-yl)- (9CI) (CA INDEX NAME)



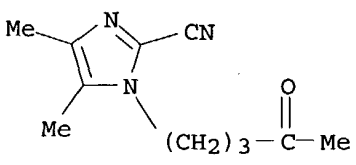
L27 ANSWER 2 OF 3 USPATFULL on STN
AN 2003:4312 USPATFULL
TI Process and intermediates for the preparation of imidazopyridines

IN Ulrich, Wolf- Rudiger, Konstanz, GERMANY, FEDERAL REPUBLIC OF
Scheufler, Christian, Engen-Neuhausen, GERMANY, FEDERAL REPUBLIC OF
Fuchss, Thomas, Konstanz, GERMANY, FEDERAL REPUBLIC OF
Senn-Bilfinger, Jorg, Konstanz, GERMANY, FEDERAL REPUBLIC OF
PI US 2003004358 A1 20030102
US 6716990 B2 20040406
AI US 2002-149290 A1 20020611 (10)
WO 2001-EP261 20010111
PRAI DE 2000-10001037 20000113
DT Utility
FS APPLICATION
LREP NATH & ASSOCIATES, 1030 15th STREET, 6TH FLOOR, WASHINGTON, DC, 20005
CLMN Number of Claims: 6
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 341
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB ##STR1## The invention relates to compounds of formula (2) in which R1, R2, R3 and R4 have the meanings indicated in the description, their prepration and their further reaction to give compounds of formula (1), in which A.sub.1, A.sub.2 and R4 have the meanings indicated in the description. The compounds of the formula (1) are valuable intermediates for the preparation of medicaments.

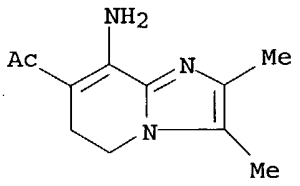
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **349636-44-8P 349636-45-9P 349636-46-0P**
(process and intermediates for the preparation of imidazo[1,2-a]pyridines from substituted imidazoles)
RN 349636-44-8 USPATFULL
CN 1H-Imidazole, 4,5-dimethyl-1-[3-(2-methyl-1,3-dioxolan-2-yl)propyl]-, 3-oxide (9CI) (CA INDEX NAME)



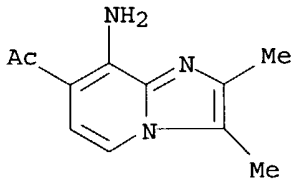
RN 349636-45-9 USPATFULL
CN 1H-Imidazole-2-carbonitrile, 4,5-dimethyl-1-(4-oxopentyl)- (9CI) (CA INDEX NAME)



RN 349636-46-0 USPATFULL
CN Ethanone, 1-(8-amino-5,6-dihydro-2,3-dimethylimidazo[1,2-a]pyridin-7-yl)- (9CI) (CA INDEX NAME)



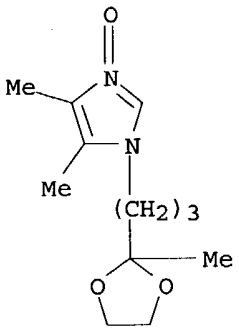
IT **349636-47-1P**
(process and intermediates for the preparation of imidazo[1,2-a]pyridines from substituted imidazoles)
RN 349636-47-1 USPATFULL
CN Ethanone, 1-(8-amino-2,3-dimethylimidazo[1,2-a]pyridin-7-yl)- (9CI) (CA INDEX NAME)



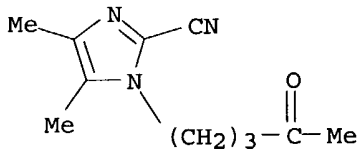
L27 ANSWER 3 OF 3 USPAT2 on STN
AN 2003:4312 USPAT2
TI Process and intermediates for the preparation of imidazopyridines
IN Ulrich, Wolf-Rudiger, Constance, GERMANY, FEDERAL REPUBLIC OF
Scheufler, Christian, Engen-Neuhausen, GERMANY, FEDERAL REPUBLIC OF
Fuchss, Thomas, Constance, GERMANY, FEDERAL REPUBLIC OF
Senn-Bilfinger, Jorg, Constance, GERMANY, FEDERAL REPUBLIC OF
PA Altana Pharma AG, Constance, GERMANY, FEDERAL REPUBLIC OF (non-U.S. corporation)
PI US 6716990 B2 20040406
WO 2001051486 20010719
AI US 2002-149290 20020611 (10)
WO 2001-EP261 20010111
PRAI DE 2000-10001037 20000113
DT Utility
FS GRANTED
EXNAM Primary Examiner: Solola, T. A.; Assistant Examiner: Sackey, Ebenezer
LREP Nath & Associates PLLC, Nath, Gary M., Juneau, Todd L.
CLMN Number of Claims: 2
ECL Exemplary Claim: 1
DRWN 0 Drawing Figure(s); 0 Drawing Page(s)
LN.CNT 312
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention relates to compounds of formula (2) in which R1, R2, R3 and R4 have the meanings indicated in the description, their preparation and their further reaction to give compounds of formula (1), in which A.sub.1, A.sub.2 and R4 have the meanings indicated in the description. The compounds of the formula (1) are valuable intermediates for the preparation of medicaments. ##STR1##

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **349636-44-8P 349636-45-9P 349636-46-0P**
(process and intermediates for the preparation of imidazo[1,2-a]pyridines from substituted imidazoles)

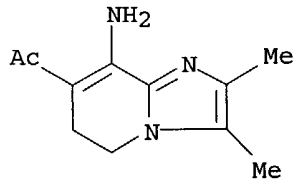
RN 349636-44-8 USPAT2
CN 1H-Imidazole, 4,5-dimethyl-1-[3-(2-methyl-1,3-dioxolan-2-yl)propyl]-, 3-oxide (9CI) (CA INDEX NAME)



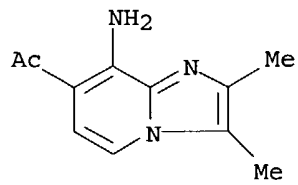
RN 349636-45-9 USPAT2
CN 1H-Imidazole-2-carbonitrile, 4,5-dimethyl-1-(4-oxopentyl)- (9CI) (CA INDEX NAME)



RN 349636-46-0 USPAT2
CN Ethanone, 1-(8-amino-5,6-dihydro-2,3-dimethylimidazo[1,2-a]pyridin-7-yl)- (9CI) (CA INDEX NAME)



IT **349636-47-1P**
(process and intermediates for the preparation of imidazo[1,2-a]pyridines from substituted imidazoles)
RN 349636-47-1 USPAT2
CN Ethanone, 1-(8-amino-2,3-dimethylimidazo[1,2-a]pyridin-7-yl)- (9CI) (CA INDEX NAME)



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